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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,592

12/23/2003

Robert Brule

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EXAMINER

BALDWIN, GORDON

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

07/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/707,592	<b>Applicant(s)</b> BRULE ET AL.	
	<b>Examiner</b> GORDON R. BALDWIN	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/23/2009 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 3-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Luthra (U.S. Pat. No. 4,933,309).**

**Consider claims 1, 3 and 7-10,** Lurtha discloses a ceramic composite which is taught to contain ceramic fibers of alumina as well as a ceramic powder of alumina with a particle sizes of 1-6 microns. (Col. 2 lines 20-28, 58-69 and Col. 3 lines 1-19)

The disclosure of a particle size of 1-6 microns is considered to anticipate the “about 5 micrometer particle size” because prior art which teaches a range within,

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overlapping, or touching the claimed range anticipates if the prior art range discloses the claimed range with sufficient specificity. See MPEP 2131.03 and Ex parte Lee, 31 USPQ2d 1105 (Bd. Pat. App. & Inter. 1993).

Lurtha is considered to disclose a composite structure in a fired state. (Col. 3 lines 10-20 and 40-55) Additionally, Lurtha discloses the use of tape-casting to produce the ceramic piece with the binder and sintering aid evaporated off, with a fired porosity of 60% or less (see col. 3, lines 53-55, for instance).

The claiming of the method of “tape-casting” is considered to be a product-by-process limitation and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process., (In re Thorpe, 227 USPQ 964,966). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious different between the claimed product and the prior art product (*In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113).

Regarding the use of Lurtha’s article as compared to the applicant’s stated use in the preamble of claim 1, the recitation “seal for use in a high temperature fuel cell” has not been given patentable weight because the recitation occurs in the preamble. A

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preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Lurtha discloses that the article described is for use in high temperature environments, therefore such an article is also considered to be in the realm of use for a seal or any other article used in a high temperature environment.

Additionally, regarding the ability of the Lurtha's article to have the same characteristics as the claimed article (ceramic fibers remaining flexible at operating temperatures and ceramic fibers resisting sintering at operational temperature), these characteristics are considered to be met by Lurtha. They are met because Lurtha teaches the use of the same materials (alumina fiber and powders) and the same process to manufacture (tape-casting) with the same size particles with porosity in the range of the applicant. By this disclosure, the features of flexible ceramic fibers at operating temperatures and fibers resisting sintering at operating temperatures is considered to be met by the disclosure in the Lurtha reference.

**Consider claims 4-6**, while Lurtha does not specifically mention a pre-fired porosity, these claims are considered to be met by Lurtha. They are met because Lurtha teaches the use of the same materials (alumina fiber and powders) and the same process to manufacture (tape-casting) with the same size particles with porosity in

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the range of the applicant. Additionally, since claim 1 relates to a seal in a "fired state", the limitations of claims 4 and 5 are merely to an intermediate phase of the final "fired" product. Therefore these limitations are not of the final product (product of claim 1) and are not given patentable weight over the prior art.

### ***Response to Arguments***

Applicant's arguments filed 6/23/2009 have been fully considered but they are not persuasive.

Regarding the applicant's arguments concerning the "coated fibrous material" disclosed by Lurtha and the difference between the applicant's interpretation of the coated fibers and the coating indicated in the final office action of 1/23/2009. Since the applicant uses "comprising" language and does not limit (and in fact is considered to be "open-ended" by the MPEP in section 2111.03) what can coat the ceramic fiber, then the disclosure of Lurtha is considered to read upon the applicant's claims. As stated under MPEP 2111.03:

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The transitional term “comprising”, which is synonymous with “including,” “containing,” or “characterized by,” is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > *Mars Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) (“like the term comprising,’ the terms containing’ and mixture’ are open-ended.”).< *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003) (“The transition comprising’ in a method claim indicates that the claim is open-ended and allows for additional steps.”); *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) (“Comprising” is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) (“comprising” leaves “the claim open for the inclusion of unspecified ingredients even in major amounts”). >In *Gillette Co. v. Energizer Holdings Inc.*, 405 F.3d 1367, 1371-73, 74 USPQ2d 1586, 1589-91 (Fed. Cir. 2005), the court held that a claim to “a safety razor blade unit comprising a guard, a cap, and a group of first, second, and third blades” encompasses razors with more than three blades because the transitional phrase “comprising” in the preamble and the phrase “group of” are presumptively open-ended. “The word comprising’ transitioning from the preamble to the body signals that the entire claim is presumptively open-ended.” *Id.* In contrast, the court noted the phrase “group consisting of” is a closed term, which is often used in claim drafting to signal a “Markush group” that is by its nature closed. *Id.* The court also emphasized that reference to “first,” “second,” and “third” blades in the claim was not used to show a serial or numerical limitation but instead was used to distinguish or identify the various members of the group. *Id.*<

Because Lurtha discloses a structure having the identical ceramic particles in over-lapping diameter ranges with the entire porosity range taught, Lurtha is considered to read upon the applicant’s claim limitations. The use of metal particles by Lurtha, in light of the “open-ended” comprising language does not negate the use of Lurtha because Lurtha discloses all of the claim limitation in claim 1.

Regarding the applicant's arguments about the material of Lurtha being different due to the metal coating that would not allow for direct contact between the ceramic fibers and the ceramic powder, this argument is not persuasive because it is not commensurate with the claim limitations. The applicant's claims in no way disclose this structural limitation of there being direct contact between the ceramic fibers and the ceramic powder.

As for the applicant's assertion that their specification teaches away from the use of metal fibers or metal particle, this is not considered to be accurate. To actually, "teach away", the specification would have to indicate that the use of the metal in the fibers or the particles would destroy the claimed invention. Under MPEP 2123 (II):

## **II. NONPREFERRED AND ALTERNATIVE EMBODIMENTS CONSTITUTE PRIOR ART**

Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994)

The applicant's specification states that, "Metal fibers or particles may be used but are not preferred...." While the applicant's specification does not completely endorse the use of metal particles and fibers, the applicant's specification through the use of terms such as "may be used but are not preferred" gives the option of using metal fibers or particles and therefore does not teach away from the use of metal particles or metal fibers.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GORDON R. BALDWIN whose telephone number is (571)272-5166. The examiner can normally be reached on M-F 7:45-5:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GRB  
/Gordon R Baldwin/  
Examiner, Art Unit 1794